

Department of Resources Recycling and Recovery

SCOPE OF WORK

Engineering and Construction Management Services for Civil Engineering Applications Using Tire Derived Aggregate (TDA) Contract

I. INTRODUCTION/OBJECTIVES

The primary purpose of this contract is to assist and support CalRecycle's efforts to promote the use of Tire Derived Aggregate (TDA) in various civil engineering applications to divert waste tires from California landfills. The Contractor will provide education, design and/or technical assistance to local and state government agencies and private entities interested in the use of TDA in civil engineering projects (e.g., lightweight fill, vibration attenuation layers, erosion control).

II. WORK TO BE PERFORMED

The Contractor will assist CalRecycle's efforts to increase the use of TDA by expanding the knowledge of TDA's engineering benefits and its construction management procedures. Pursuant to CalRecycle's direction, the Contractor will work in partnership with local and state government agencies to provide TDA technology transfer and construction management support on TDA pilot demonstration projects and TDA grant projects awarded by CalRecycle. The Contractor may conduct research on issues related to the use of TDA in civil engineering applications and to provide technical assistance to state and local governments, and industry as directed by CalRecycle.

All work under this contract shall be performed in accordance with the work orders issued by the contract manager under this contract. Work to be performed will include, but is not limited to, the following:

1. TDA project design and analysis;
2. TDA pilot demonstration and grant project construction management oversight and technical assistance;
3. Identification and investigation of potential barriers and environmental impacts of using TDA;
4. Research investigations for new civil engineering applications for TDA; and
5. Training and technical assistance on technical issues related to using TDA in civil engineering applications.

III. TASKS IDENTIFIED

All work under this contract shall be performed through work orders issued by the contract manager to the Contractor. The contract manager will issue an initial work order that directs the Contractor to develop a work plan that identifies the required tasks and includes a time schedule and budget needed to complete the assigned project. As required and pursuant to the work plan, the contract manager will issue additional work orders to implement the subtasks necessary to complete the assigned project. Any subsequent changes to the work orders shall be documented through a revised work order signed by both parties.

There will likely be occasions when multiple tasks must be completed for TDA projects constructed at the same time. The Contractor shall provide CalRecycle with sufficient resources to ensure cost-effective and timely completion of multiple tasks and projects.

Tasks performed under this contract will be provided in two specific areas: Technical Assistance and Education and Construction Management Oversight. The tasks include, but are not limited to, the following:

A. Technical Assistance and Education

1. Perform and coordinate the design of TDA pilot and grant projects with CalRecycle staff and state and local agency partners. Specific subtasks include, but are not limited to TDA projects requiring:
 - a. Geotechnical and earthquake analysis of landslide and retaining wall projects;
 - b. Landfill design and operation;
 - c. Vibration and sound mitigation analysis related to light rail design; and
 - d. Drainage media and other civil engineering applications.
2. As directed by CalRecycle staff, assist in the organization of educational seminars, workshops and meetings to educate engineers and project managers on the benefits of using TDA in civil engineering applications.
3. Investigate and evaluate existing and new civil engineering uses of waste tires, such as lightweight fill, vibration attenuation layers, and erosion control applications.
4. Assist in the development or revision of technical standards for use in state and local government design specifications, guidance manuals and/or regulations.
5. Conduct pilot and bench scale test studies, lab studies, paper studies, and literature reviews regarding additional uses and possible environmental effects of tire shreds.

B. Construction Management Oversight

1. Construction management oversight of TDA pilot demonstration and grant projects including but not limited to:
 - a. TDA material procurement, processing and delivery;
 - b. TDA installation oversight to assure proper placement at project sites;
 - c. Perform QA/QC to assure TDA meets project specification;
 - d. Prepare daily work logs, construction progress reports, and project cost tracking reports;
 - e. Prepare final construction completion reports; and
 - f. Monitor and evaluate long-term performance of completed projects.
2. Conduct site Surveys and assist CalRecycle staff with the installation of monitoring equipment at selected TDA projects to evaluate long-term performance of completed projects.
3. Assist in obtaining permits and coordinating environmental issues with appropriate regulatory agencies.
4. Assist CalRecycle staff with addressing general questions from local and state governments or other interested stakeholders regarding technical or construction management issues associated with TDA projects.

IV. TIME FRAME

It is anticipated that this contract will be awarded in June 2014 and expire in May 2016. This contract will ultimately encumber funding from Fiscal Years 2013/2014 and 2014/2015, subject to the passage of the Fiscal Year 2014/15 Budget Act and funding availability.

V. CONTRACT/TASK

Tasks performed under this contract will be authorized by work orders issued by the contract manager.

The following provisions will be included in the Terms and Conditions or Special Terms and Condition of the Contract:

VI. COPYRIGHT PROVISION

The contractor shall establish for CalRecycle good title in all copyrightable and trademarkable materials developed as a result of this Scope of Work. Such title shall include exclusive copyrights and trademarks in the name of the State of California, Department of Resources, Recovery and Recycling (CalRecycle).

VII. CALIFORNIA WASTE TIRES

Unless otherwise provided for in this Scope of Work, in the event the contractor and/or subcontractor(s) purchases waste tires or waste-tire derived products for the performance of this Scope of Work, only California waste tires and California waste tire-derived products shall be used. As a condition of payment under the agreement, the contractor shall be required to provide documentation substantiating the source of the tire materials used during the performance of this Scope of Work to the contract manager.

VIII. WASTE REDUCTION AND RECYCLED-CONTENT PRODUCT PROCUREMENT

In the performance of this Agreement, Contractor shall use recycled content, used or reusable products, and practice other waste reduction measures where feasible and appropriate.

Recycled Content Products: All products purchased and charged/billed to CalRecycle to fulfill the requirements of this contract shall be Recycled Content Products (RCPs), or used (reused, remanufactured, refurbished) products. All RCPs purchased or charged/billed to CalRecycle to fulfill the requirements of the contract shall have both the total recycled-content (TRC) and the postconsumer content (PC) clearly identified on the products. Specific requirements for the aforementioned purchases and identification are discussed in the Terms and Conditions of the Contractual Agreement under Recycled-Content Product Purchasing and Certification.

The contractor should, at a minimum, ensure that the following issues are addressed, as applicable to the services provided:

IX. WRITTEN DOCUMENT PROVISION

All documents and/or reports drafted for publication by or for CalRecycle in accordance with this contract shall adhere to CalRecycle's *Guidelines For Preparing CalRecycle Reports (available upon request)* and shall be reviewed by CalRecycle's Contract Manager in consultation with one of the CalRecycle's editors.

In addition, these documents and/or reports shall be printed double-sided on one hundred percent (100%) recycled-content paper. Specific pages containing full-color photographs or other ink-intensive graphics may be printed on photographic paper. The paper should identify the postconsumer recycled content of the paper (i.e., "printed on 100% postconsumer paper"). When applicable, the contractor shall provide the contract manager with an electronic copy of the document and/or report for CalRecycle's uses.

To the greatest extent possible, soy ink instead of petroleum-based inks should be used to print all documents.